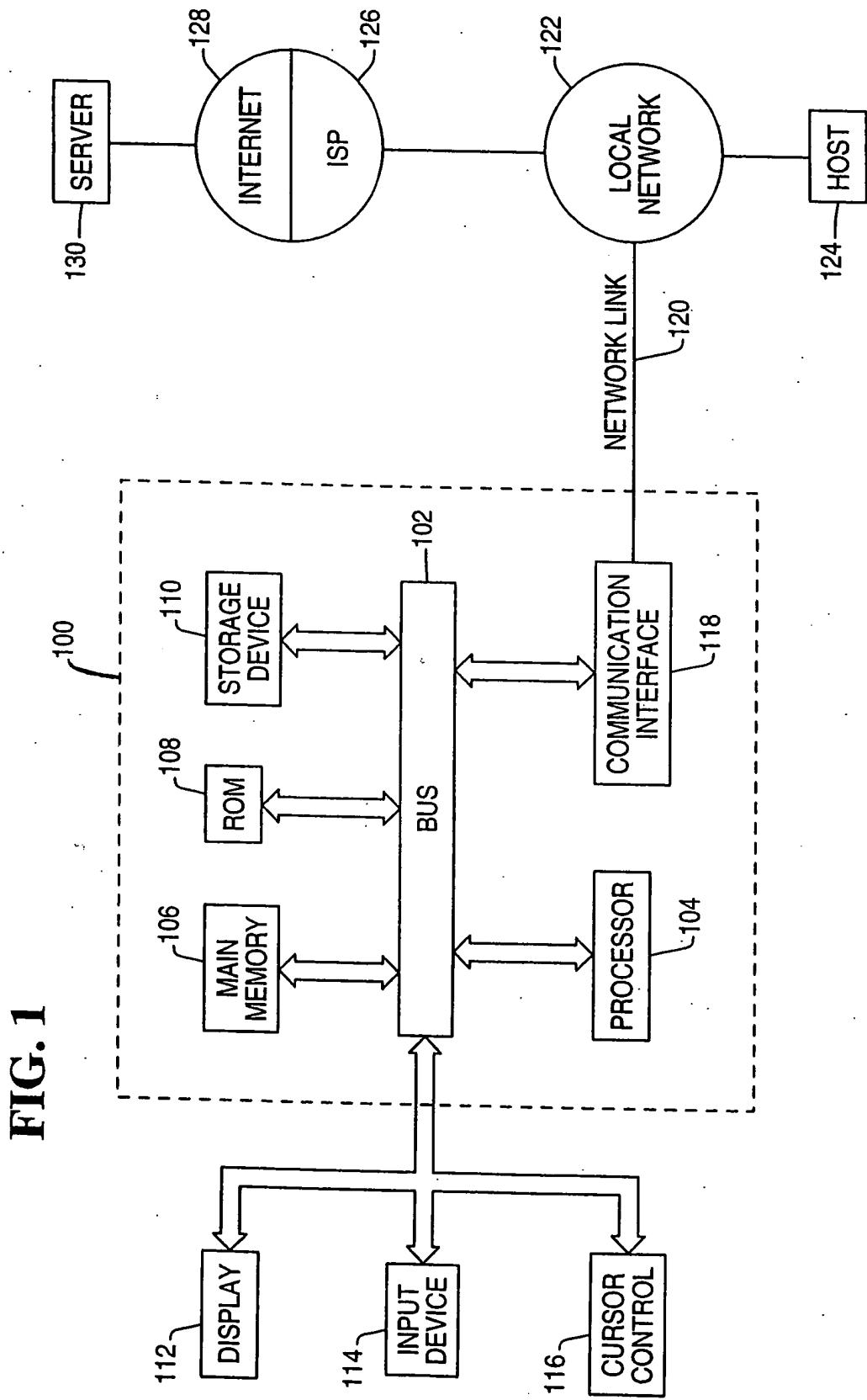


Amendments to the Drawings:

The attached 23 sheets of drawings include changes to Figs. 1, and 4-25. The sheets of drawings, which include drawings 1 and 4-25, replace the original drawings 1 and 4-25. In Figs. 1, 10, 12, 14, 16 and 23 the margins have been adjusted. In Figs. 4-25, line quality has been corrected. In Fig. 7, an incorrect and redundant reference "750" has been deleted and a typographical error has been corrected by changing reference number "42" to reference number "742". In Fig. 9, redundant reference number "960" has been changed to reference number "961".

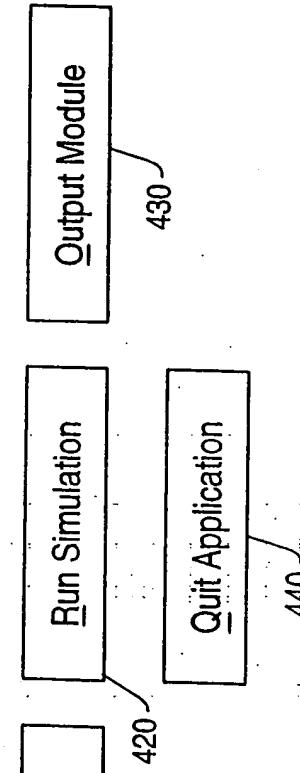




Lane And Front-End Effectiveness Model

FIG. 4

Developed by
Human Factors Engineering



400

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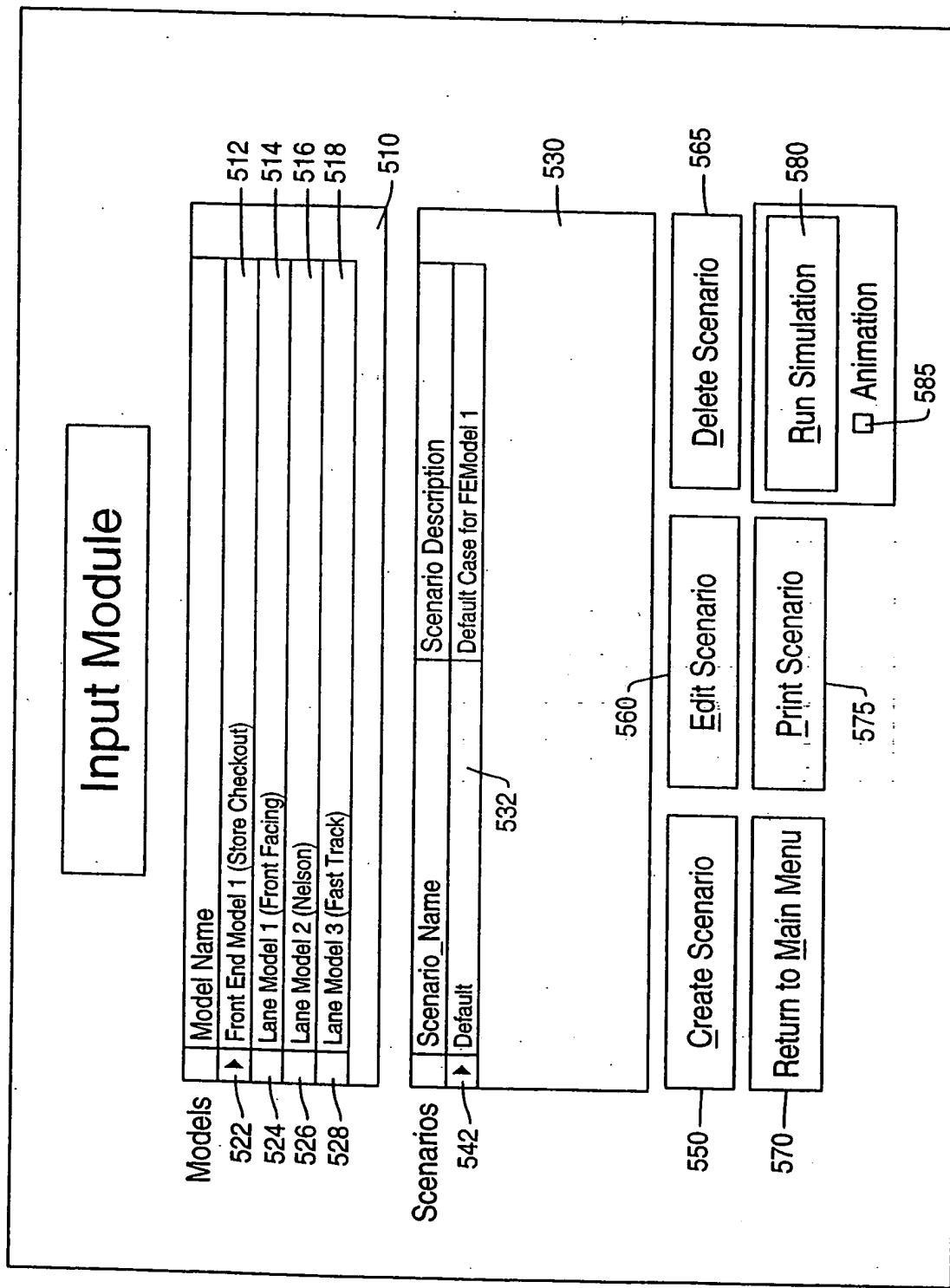
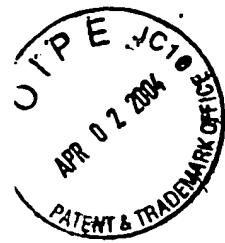


FIG. 5

500



Create Parameter File					
Model Name	<input type="text" value="Front End Model 1 (Store Checkout)"/>				
Please Select the Scenario You Want to Clone					
<table border="1"><tr><td>Scenario_Name</td><td>Scenario_Description</td></tr><tr><td>► Default</td><td>Default Case for FEModel 1</td></tr></table>		Scenario_Name	Scenario_Description	► Default	Default Case for FEModel 1
Scenario_Name	Scenario_Description				
► Default	Default Case for FEModel 1				
Please Type Scenario Name and Description in the Text Boxes Below					
Scenario Name	<input type="text" value="Test 1"/>				
Scenario Description	<input type="text" value="Add 4 Checkstands: 1 Express & 3 Regular"/>				
600					

FIG. 6



Replacement Sheet

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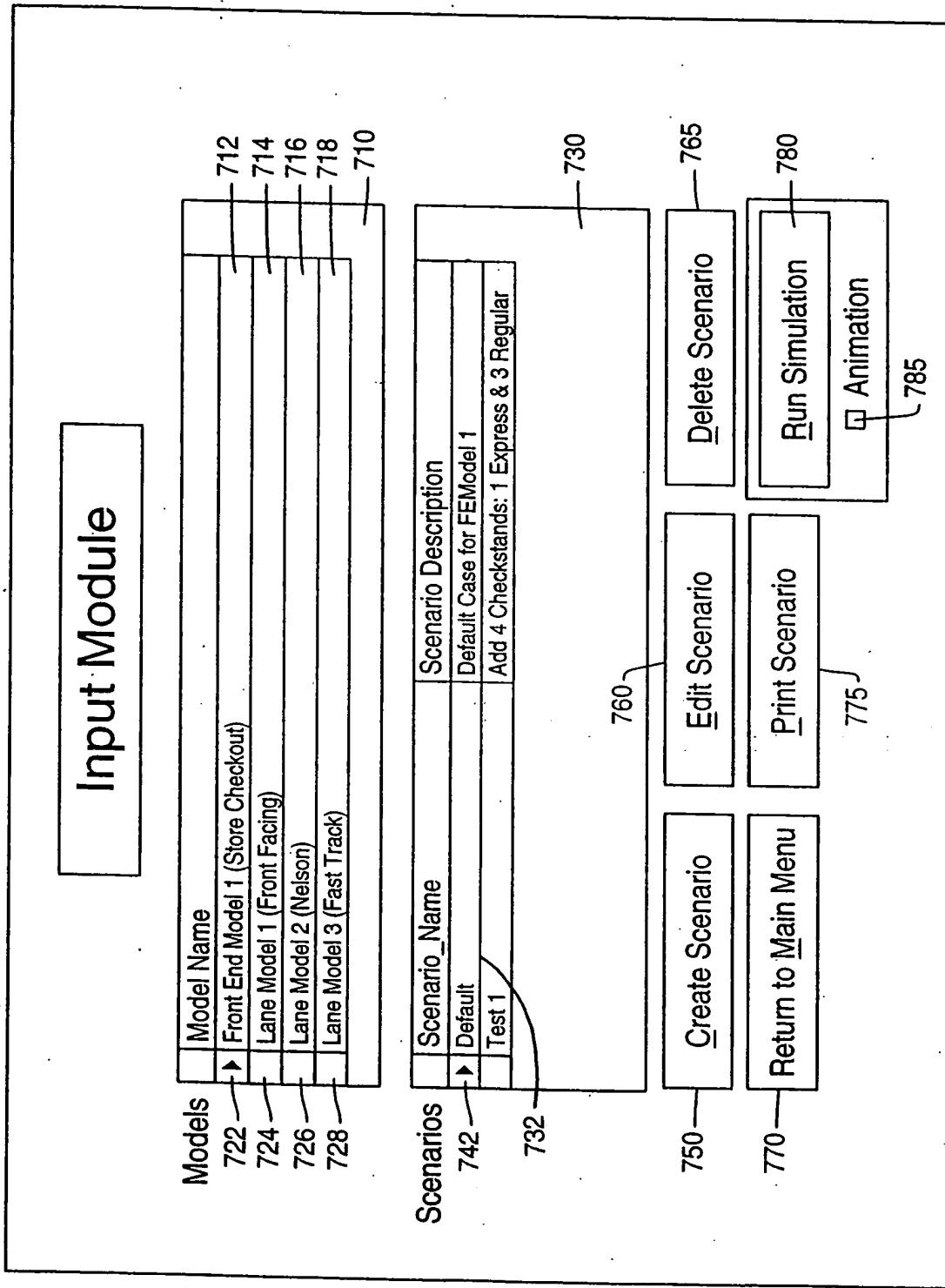


FIG. 7



FIG. 8

Edit Parameter File

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Model Name	Front End Model 1 (Store Checkout)	Scenario Name	Test 1
------------	------------------------------------	---------------	--------

Parameter Categories

Transaction Itemization	822	Transaction Finalization	824	Transaction Bagging	826	Transaction Intervention	828
Configuration	830	Customer Demand	832	Schedules	834	Model Parameters	836

Parameter	Value	Range	Description
Start time of the simulation scenario (hours)	6	0 to 24 (hours)	Start time of simulation scenario in hour from midnight.
End time of the simulation scenario (hours)	23	0 to 24 (hours)	End time of simulation scenario in hours from midnight. End time must be greater than Start time.
Number of Fast-Track lanes	1	0 to 47	Number of Fast-Track lanes at the front-end. The total number of all lanes cannot exceed 48
Number of Express lanes	3	0 to 47	Number of Express lanes at the front-end. The total number of all lanes cannot exceed 48
Number of Regular lanes	13	1 to 48	Number of Regular lanes at the front-end. The total number of all lanes cannot exceed 48

Lane Type

F
E
R
All

[Return to Input Form](#)

800 →

845

820

810

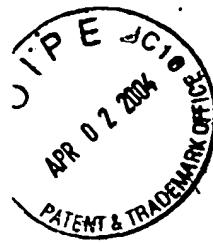
815

850

855

860

865



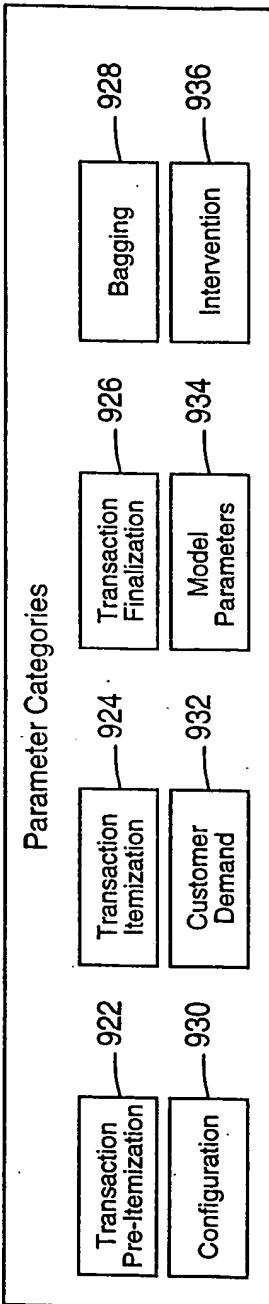
Replacement Sheet

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Edit Parameter File

Model Name

Scenario Name



Lane #	Parameter	Value	Range	Description
1	Time length of scenario	60	0.0 to 1440.0 (minutes)	Length of the simulation scenario in minutes
2	Number of baggers	1	0,1, or 2	Number of baggers; options are 0 baggers, 1 bagger for both lanes, or 2 baggers - one for each lane
	Maximum number of items on front belt	20	1 to 200	Maximum number of items on front belt
	Maximum number of items in bagging area	20	1 to 200	Maximum number of items on back belt and bagging area
All	Probability of basket icon	0.5	0.0 to 1.0	Probability a customer uses a basket (vs. cart) when their

[Return to Input Form](#)

FIG. 9

900



Replacement Sheet

10/33

Arrival Rate Schedule

Time Interval	Number of Arrivals
4:46 AM ... 5:00 AM	0
5:01 AM ... 5:15 AM	0
5:16 AM ... 5:30 AM	0
5:31 AM ... 5:45 AM	0
5:46 AM ... 6:00 AM	0
6:01 AM ... 6:15 AM	4
6:16 AM ... 6:30 AM	12
6:31 AM ... 6:45 AM	8
6:46 AM ... 7:00 AM	20
7:01 AM ... 7:15 AM	28
7:16 AM ... 7:30 AM	20
7:31 AM ... 7:45 AM	24
7:46 AM ... 8:00 AM	28

1040

1050

Enter the number of
arrivals per hour in each
15-minute time interval

1015

1010

1000

1060

1065

FIG. 10

**Average Basket Sizes**

1140

1150

Time Interval	Avg Basket Size
12:01 AM - 12:15 AM	0
12:16 AM - 12:30 AM	0
12:31 AM - 12:45 AM	0
12:46 AM - 1:00 AM	0
1:01 AM - 1:15 AM	0
1:16 AM - 1:30 AM	0
1:31 AM - 1:45 AM	0
1:46 AM - 2:00 AM	0
2:01 AM - 2:15 AM	0
2:16 AM - 2:30 AM	0
2:31 AM - 2:45 AM	0
2:46 AM - 3:00 AM	0
3:01 AM - 3:15 AM	0

1115

1110

Print Basket Sizes**Return to Edit Form**

1160

1165

FIG. 11

1100



Replacement Sheet 12/33

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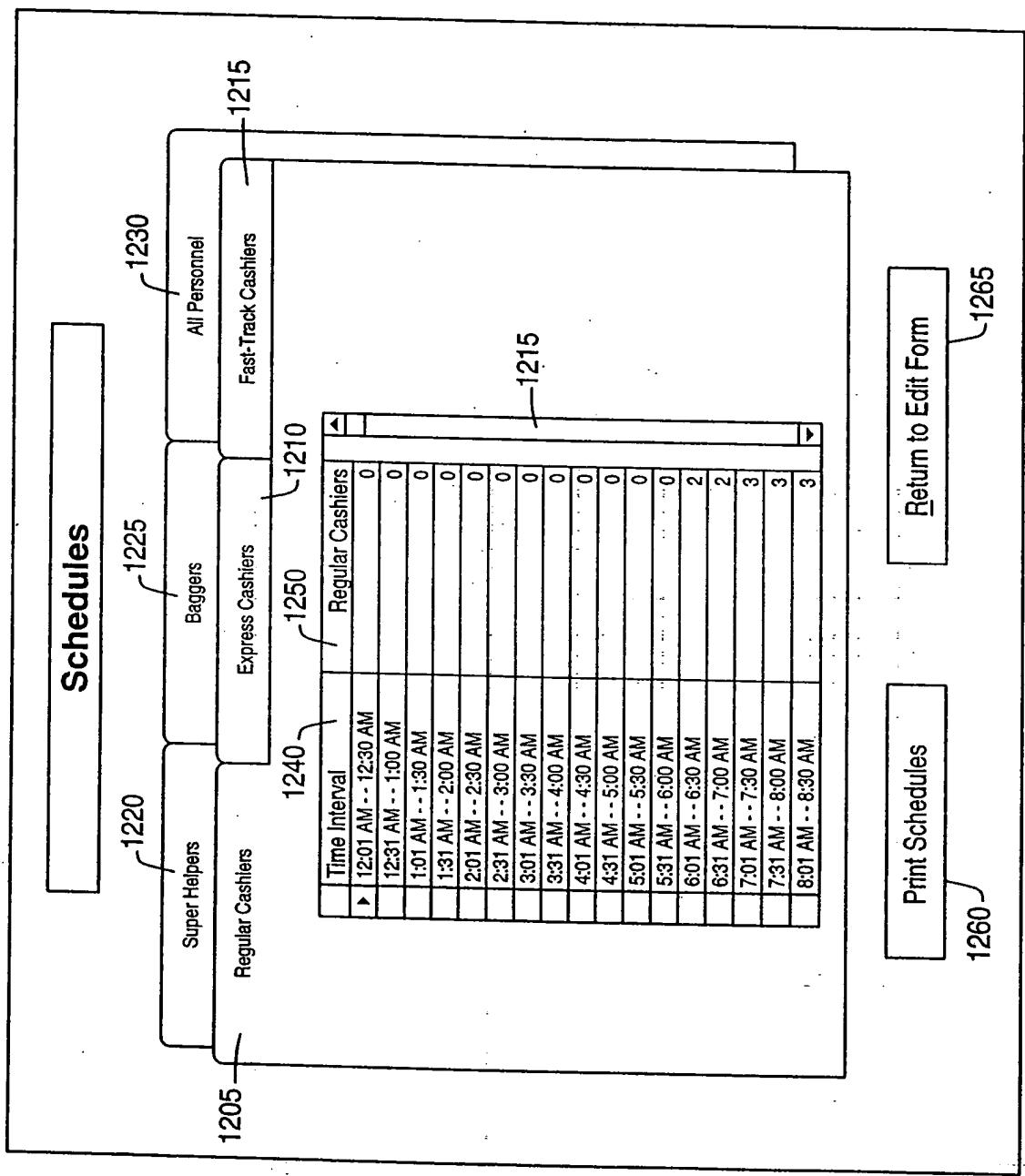


FIG. 12

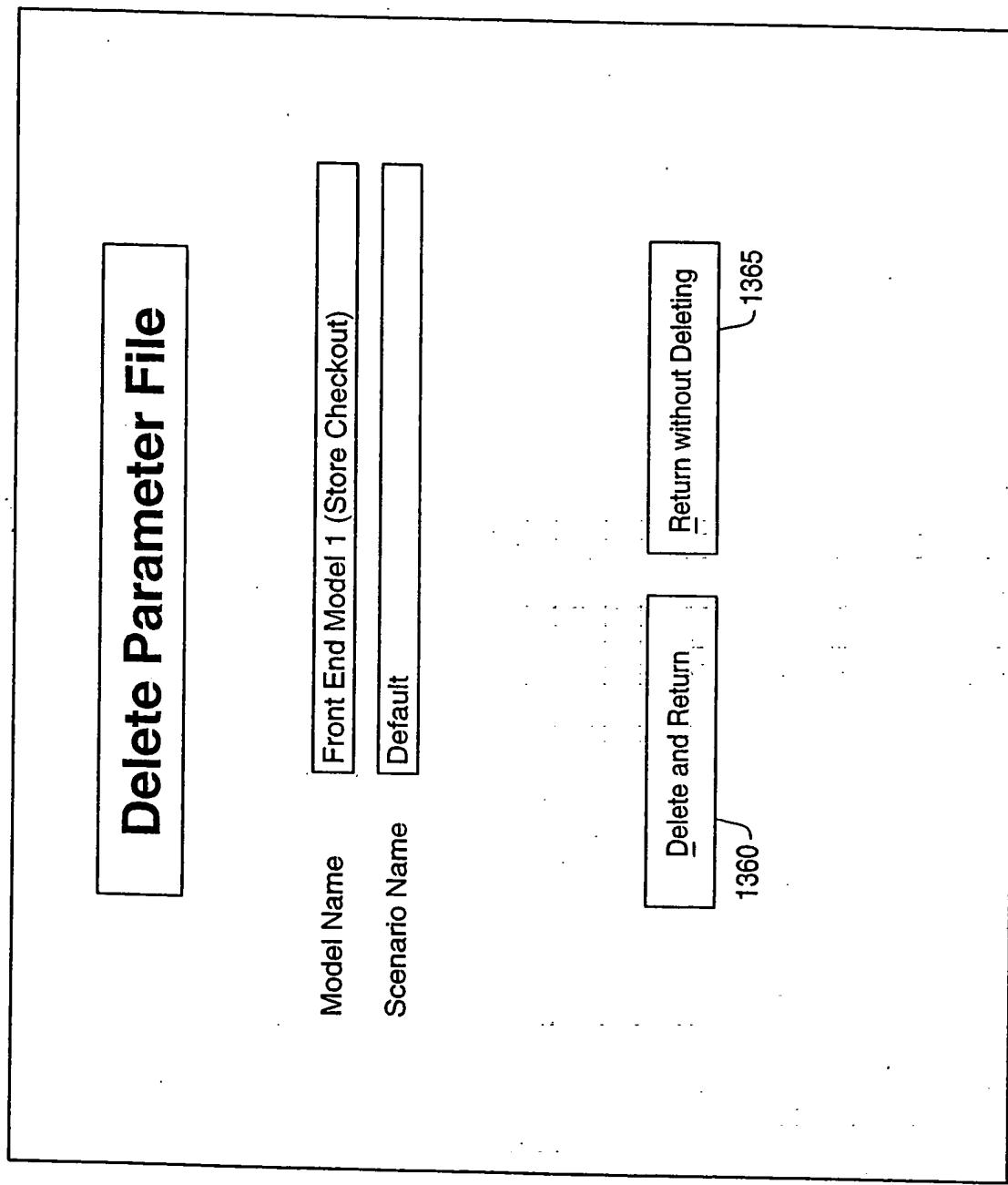
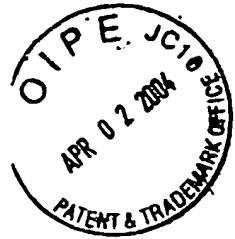


FIG. 13



Scalar Input Values

February 24, 1999

1 of 1+ ▶ ■ 🔍 88% Total: 141 100% 141 of 141

Input Parameters For Front End Model 1 (Store Checkout)

Scenario Name: Default

Scenario Description: Default Case For FEM

Parameter	Value	Range	Description
Start time of the simulation scenario (hours)	6	0 to 24 (hours)	Start time of the simulation scenario in hour from midnight. Start time must be less than End time.
End time of the simulation scenario (hours)	23	0 to 24 (hours)	End time of the simulation scenario in hours from midnight. End time must be greater than Start time.
Number of Fast-Track lanes	1	0 to 47	Number of Fast-Track lanes at the front-end. The total number of all lanes (Fast-Track + Express + Regular) cannot exceed 48.
Number of Express lanes	3	0 to 47	Number of Express lanes at the front-end. The total number of all lanes (Fast-Track + Express + Regular) cannot exceed 48.
Number of Regular lanes	13	1 to 48	Number of Regular lanes at the front-end. Must be at least 1 Regular lane. The total number of all lanes (Fast-Track + Express + Regular) cannot exceed 48.

FIG. 14

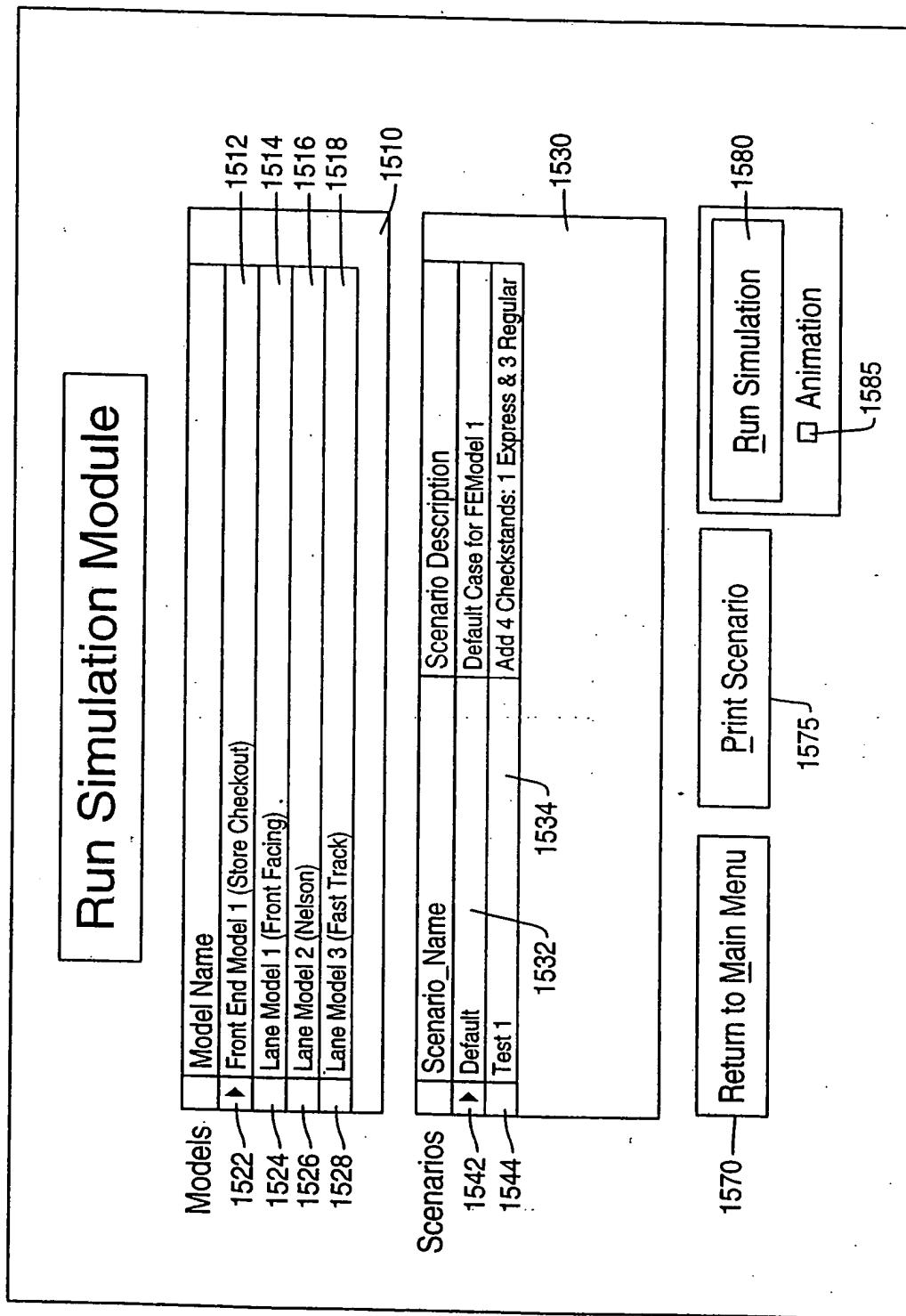
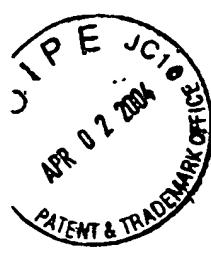


FIG. 15



Replacement Sheet 16/33

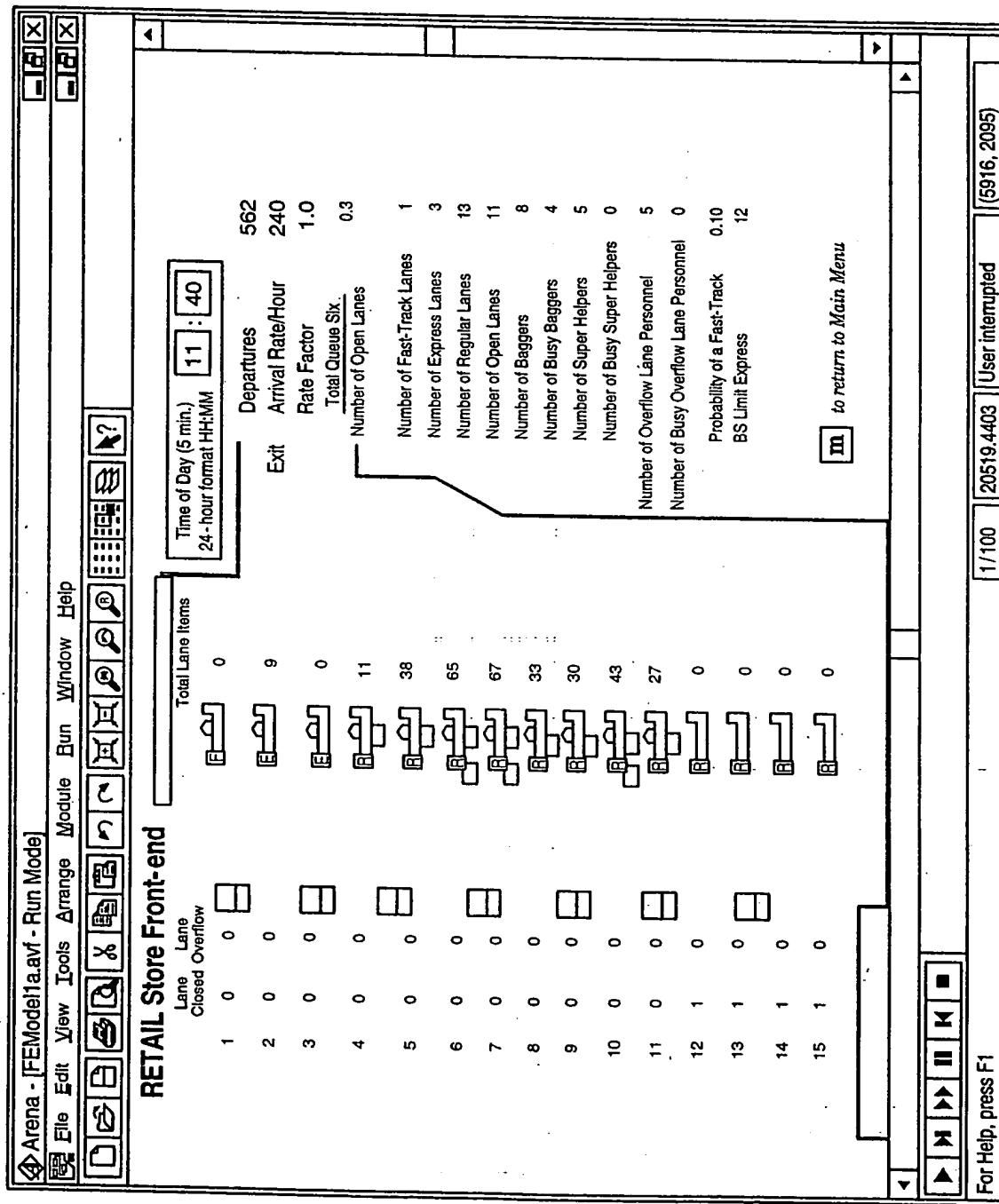


FIG. 16

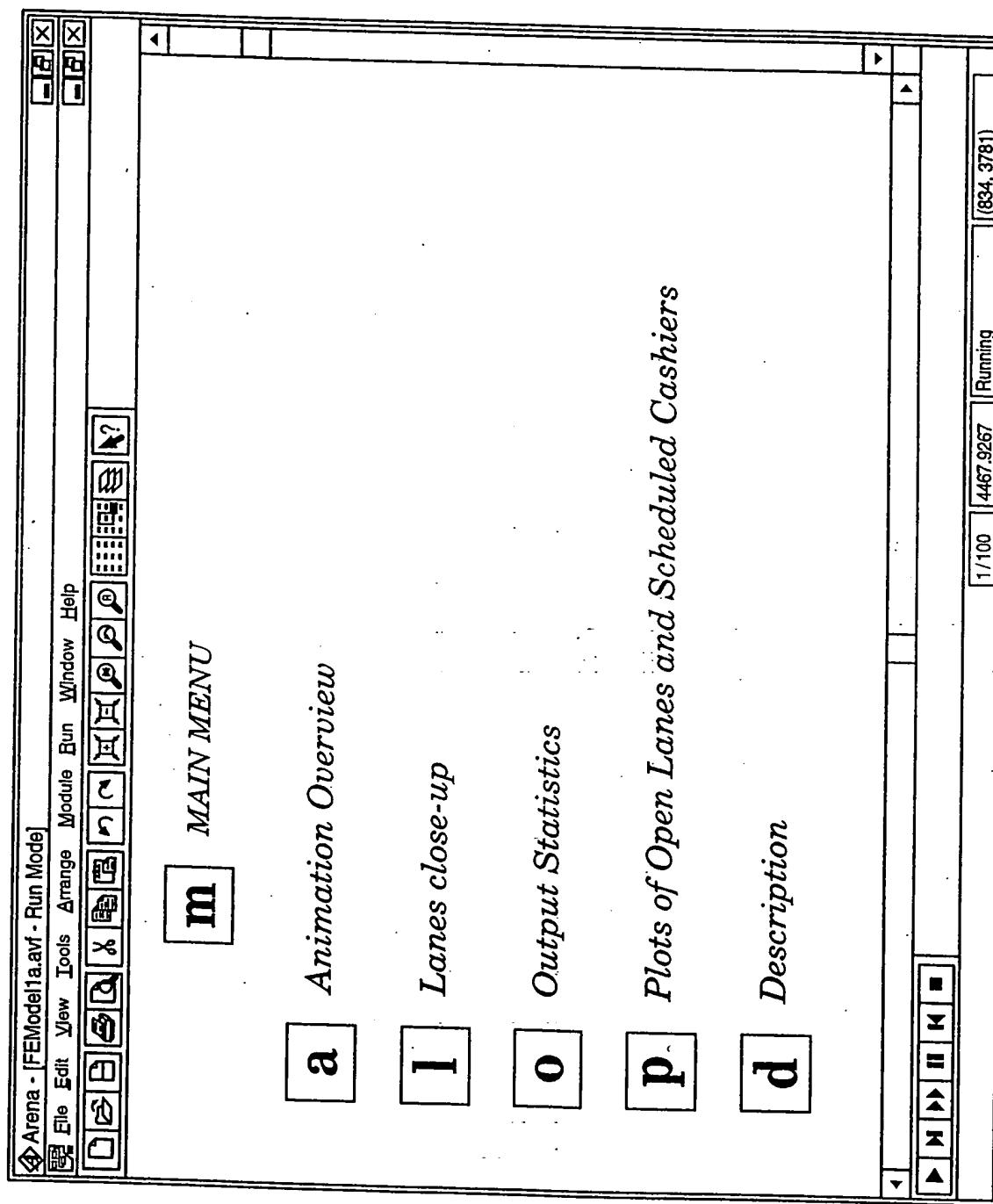


FIG. 17

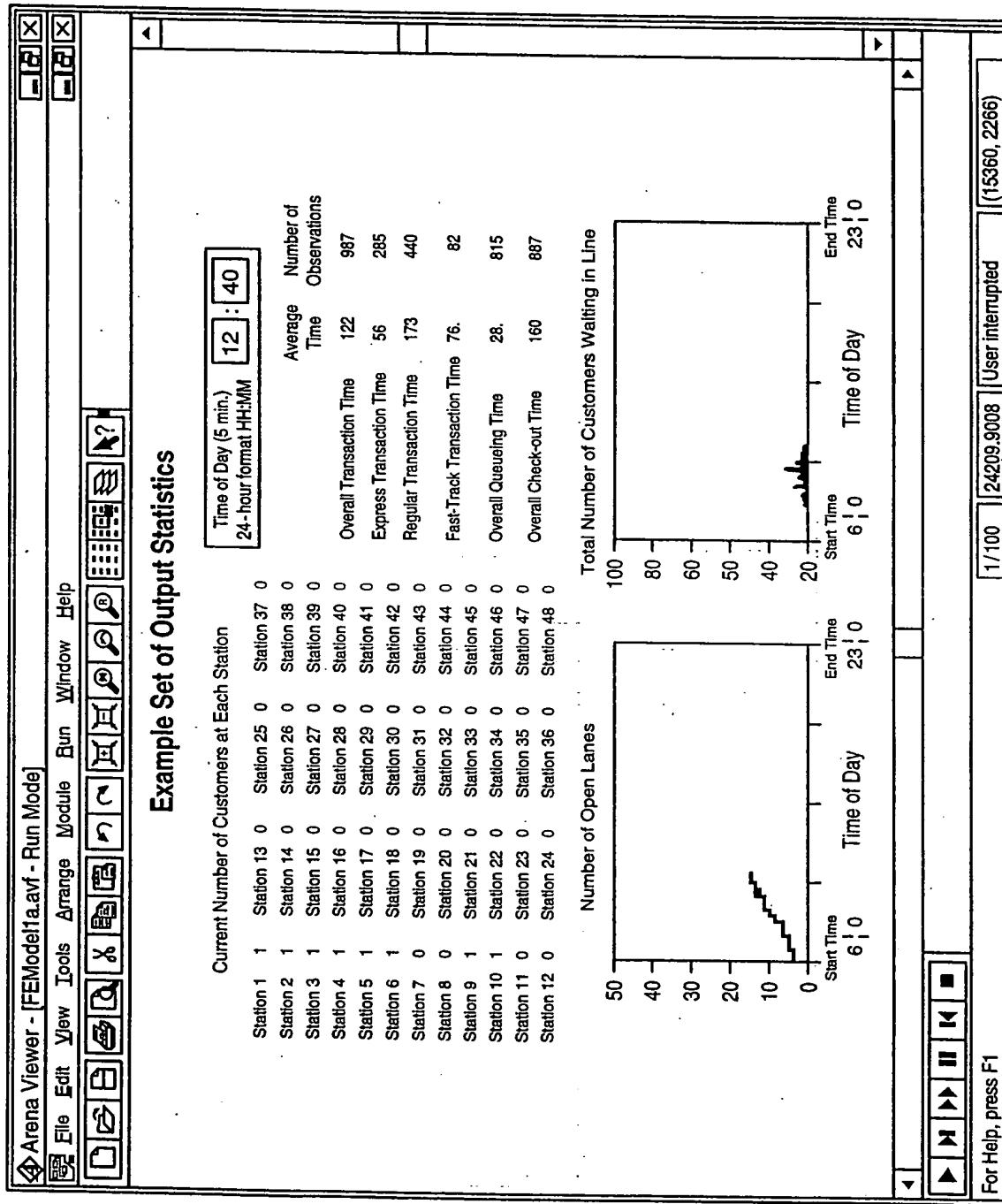


FIG. 18

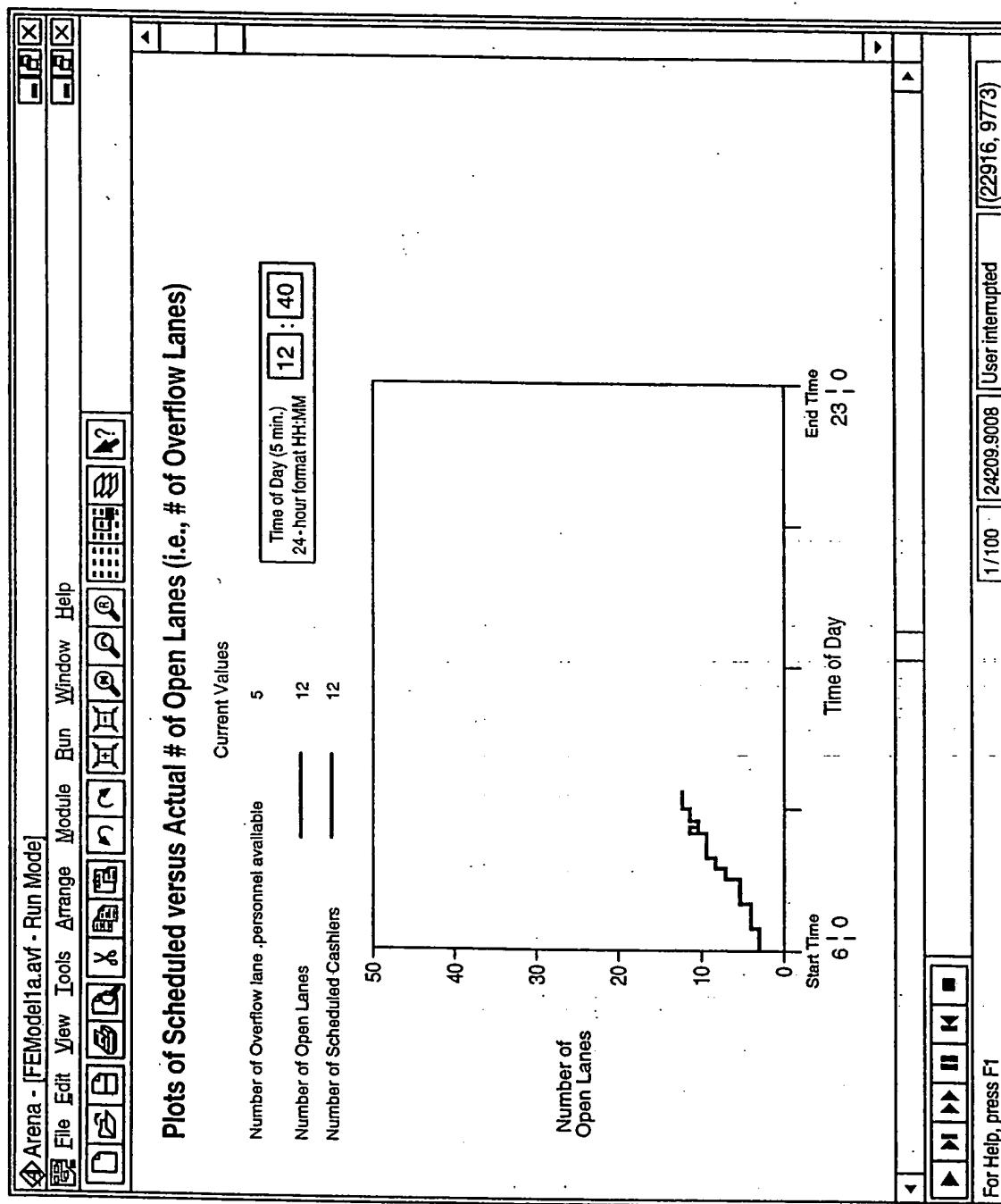


FIG. 19

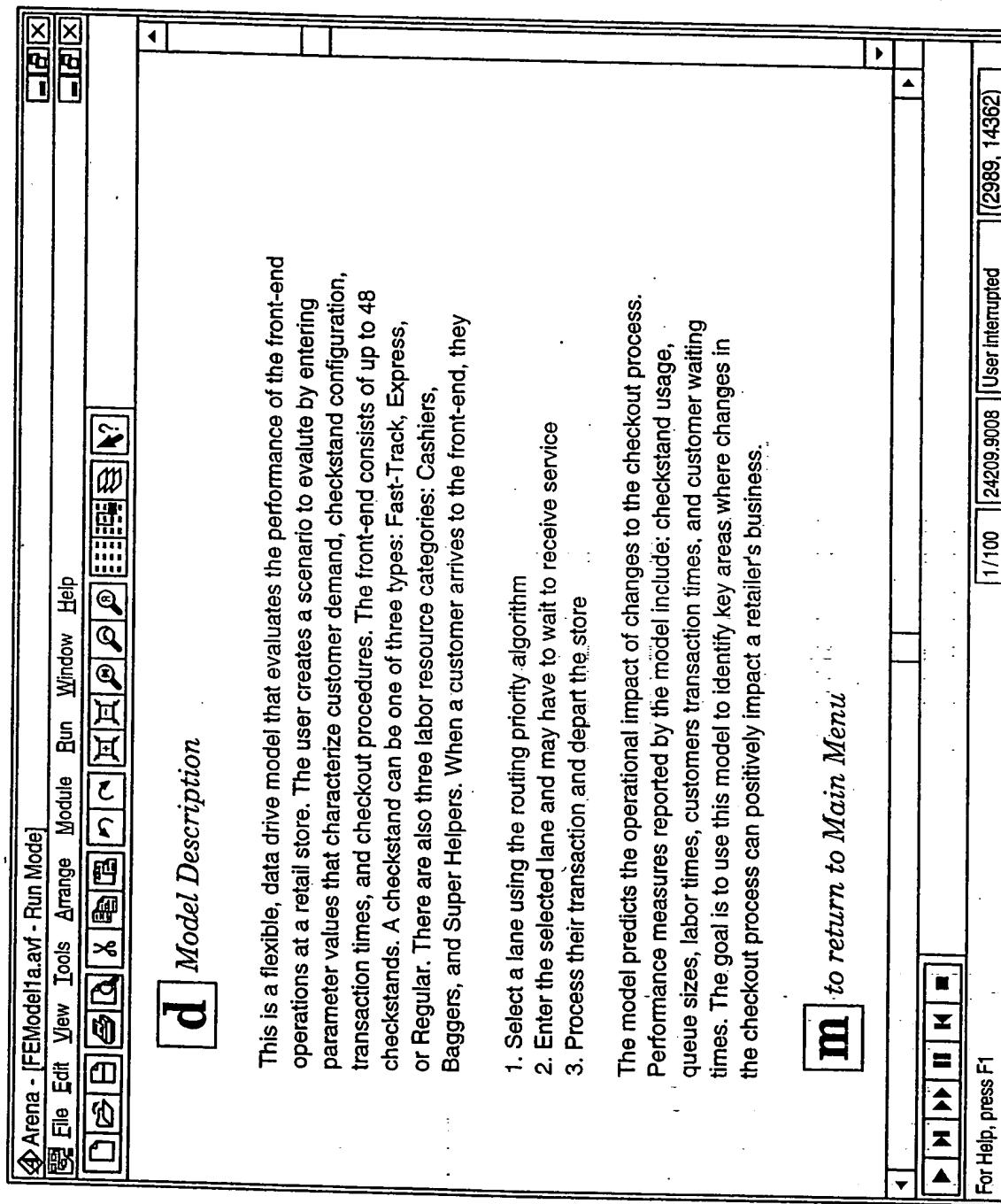
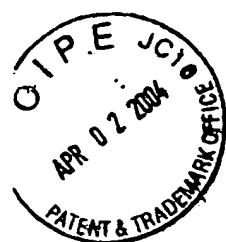


FIG. 20

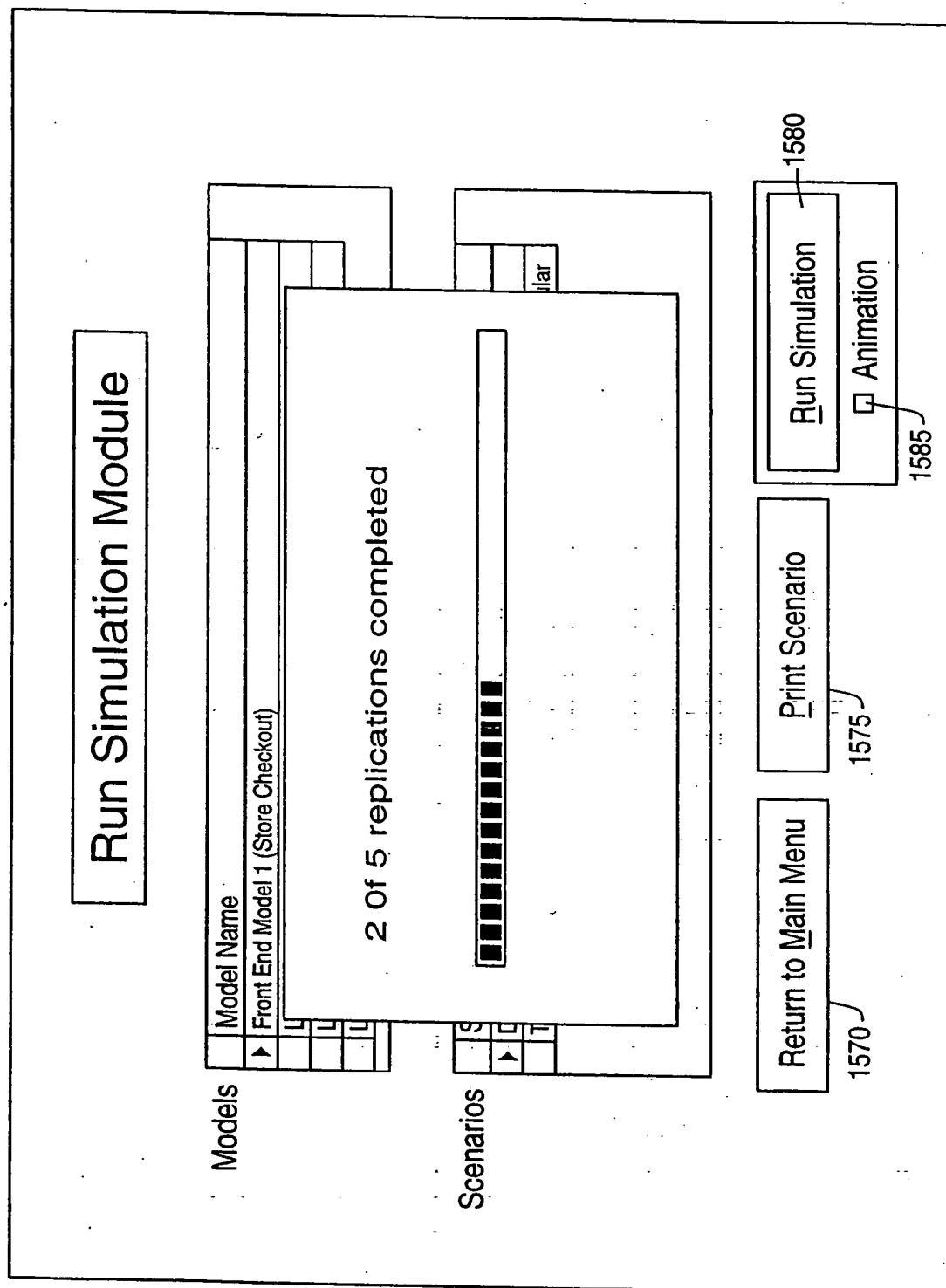
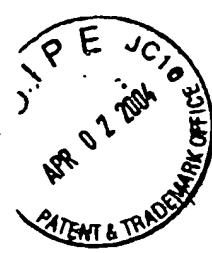
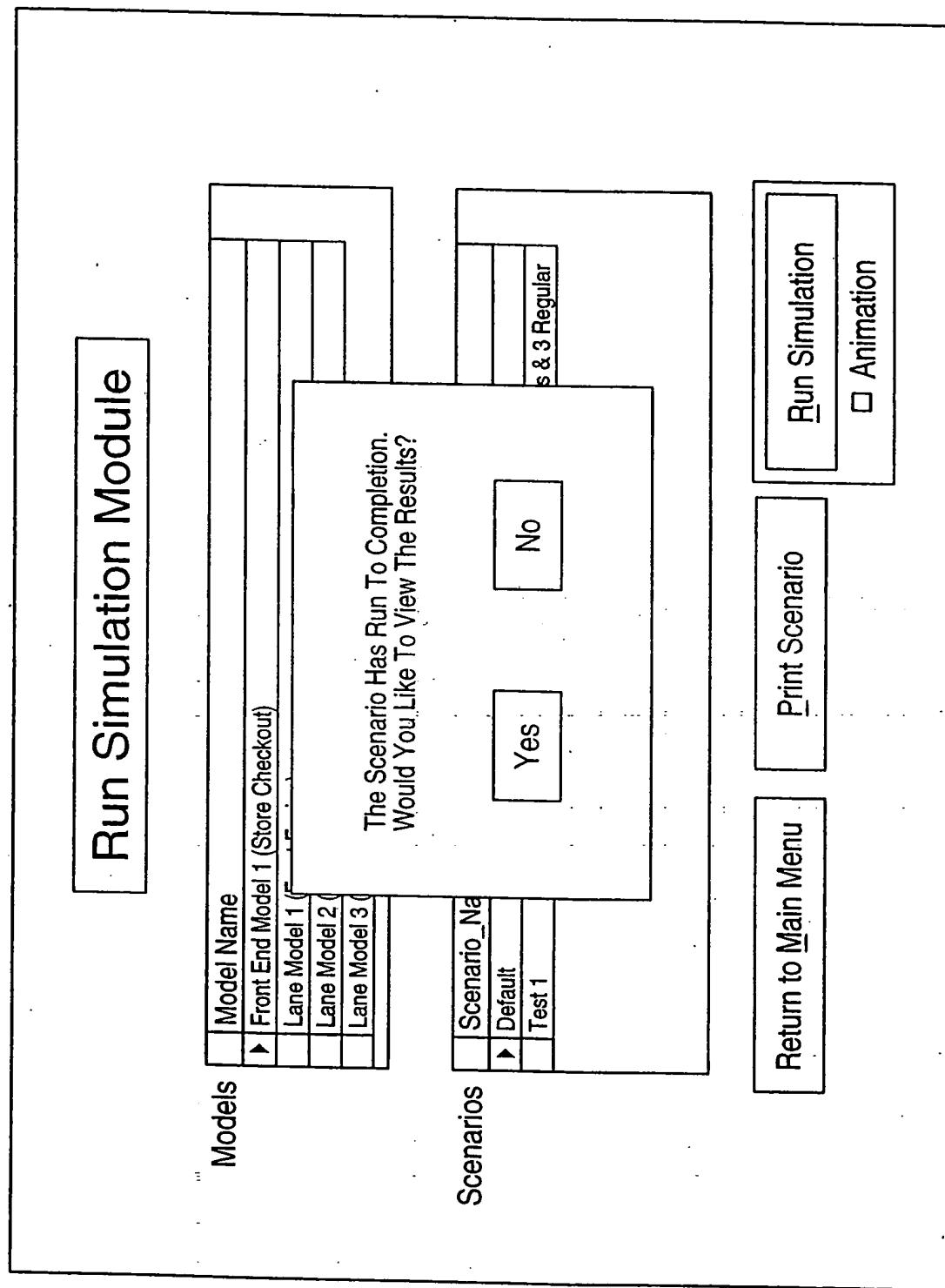
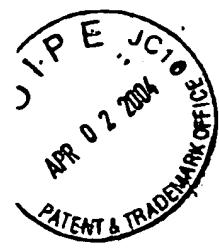
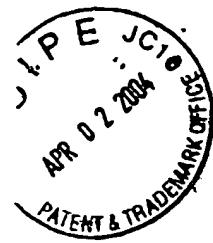


FIG. 21

**FIG. 22**



Replacement Sheet

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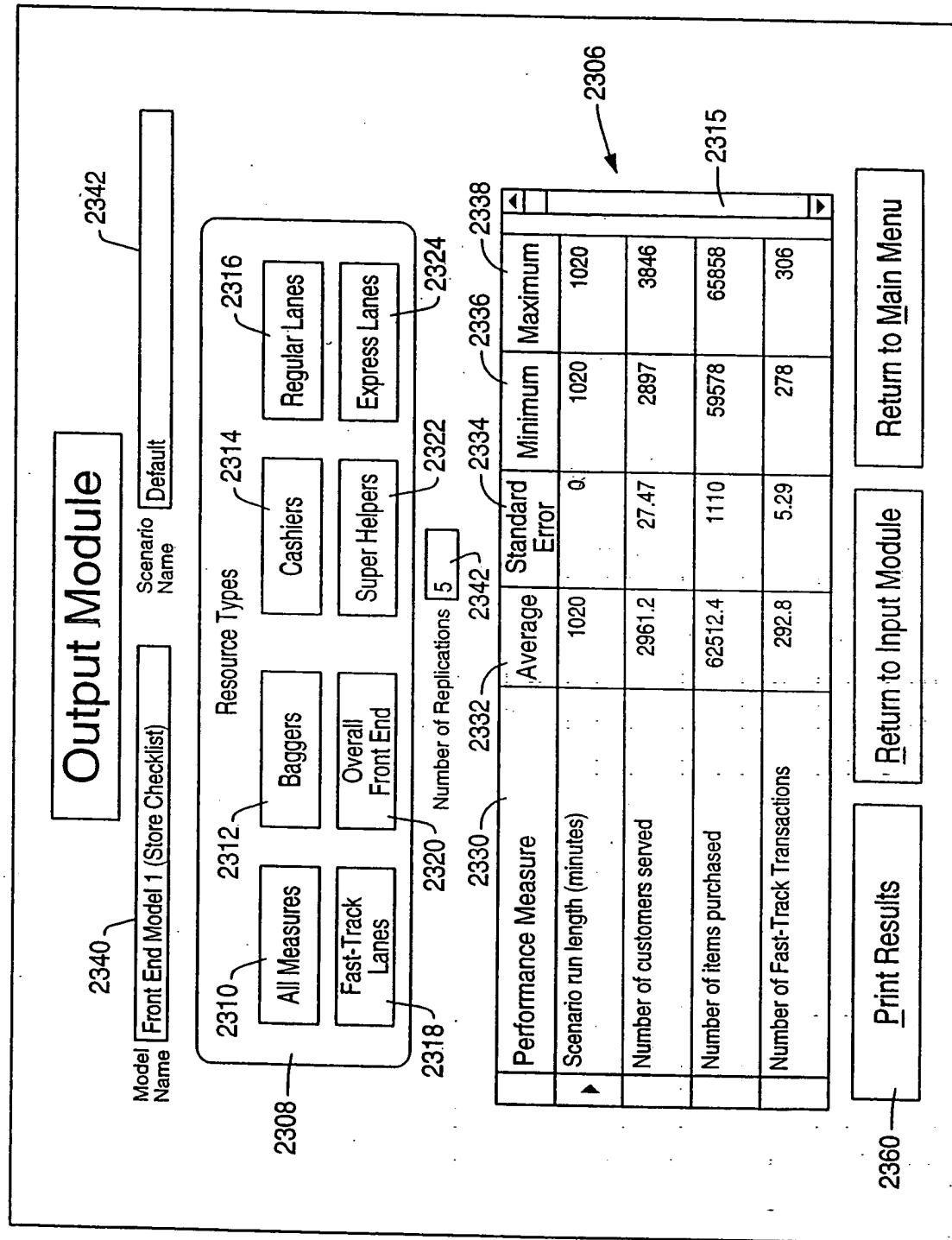


FIG. 23



Replacement Sheet

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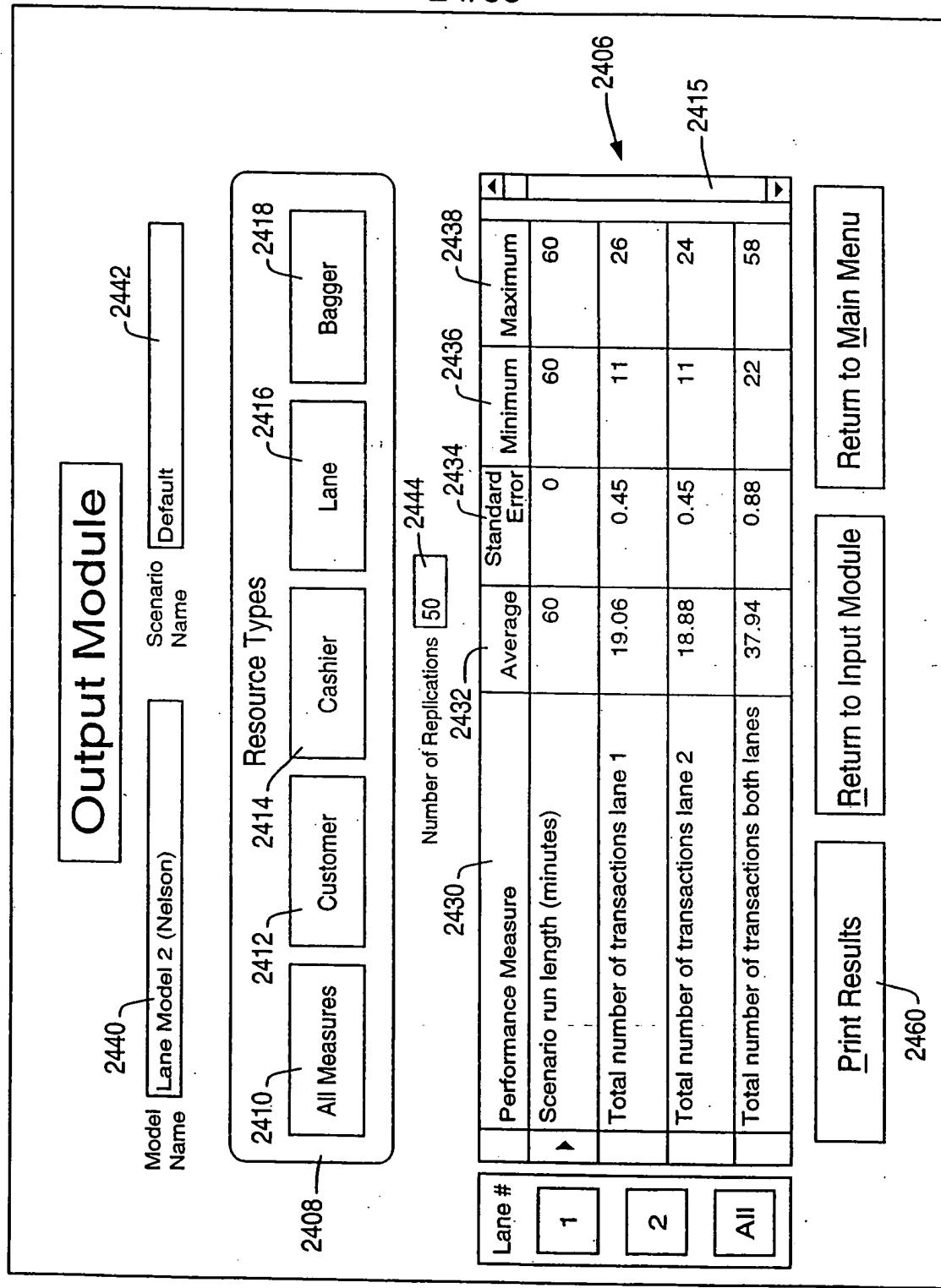


FIG. 24

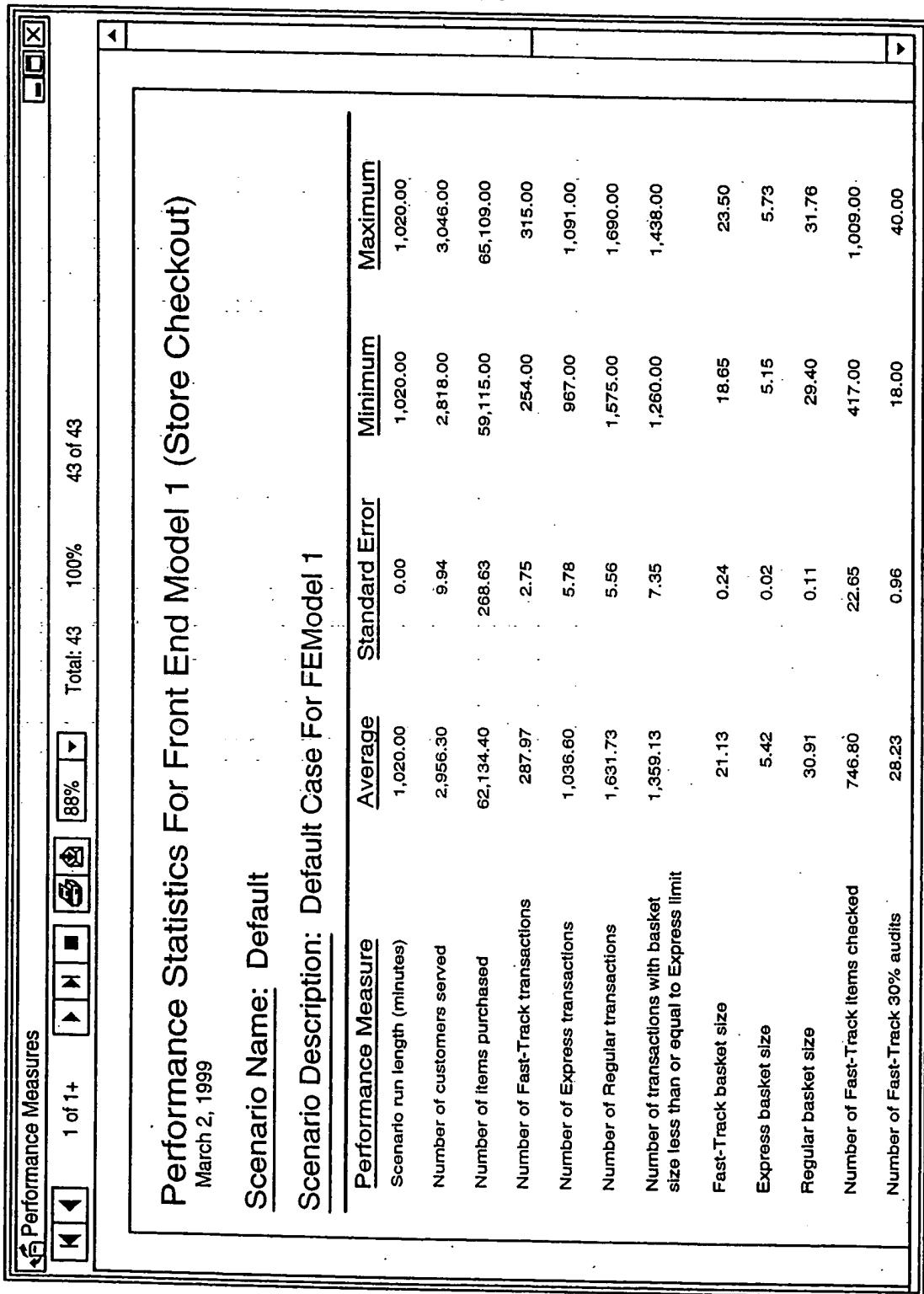


FIG. 25